MSCA

Marie Skłodowska-Curie Actions

Marie Skłodowska-Curie Actions – as a part of 1st pillar of Horizon Europe – fund excellent research and innovation and equip researchers at all stages of their career with new knowledge and skills, through mobility across borders and exposure to different sectors and disciplines. **The MSCA help build Europe's capacity for research and innovation by investing in the long-term careers of excellent researchers.** By doing so, they achieve a structuring impact on higher education institutions, research centres and non-academic organisations.

The MSCA promote excellence and set standards for high-quality researcher education and training in line with the European Charter for Researchers and the Code of Conduct for the recruitment of researchers.

Source: MSCA website

PhD
Jagoda Kaszowska-Mojsa
MODELLING FOR PUBLIC POLICY PURPOSES (MPP)

INSTITUTE OF ECONOMICS, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
JAGODA.KASZOWSKA@INEPAN.WAW.PL
+48 607 329 613

EXPERTISE

Our research team is focused on creating models for simulating and forecasting public policy. In particular, we are interested in providing insights about the effects of potential, not yet implemented, policies for the economy, financial system, and society. We have worked on financial stability, systemic risk, and the welfare effects of macroprudential policies. Currently, we are working on incorporating AI components within agent-based models.

SEEKING FOR COLLABORATION WITHIN

financial stability, macroprudential policies, systemic risk, inequality, agent-based modelling

RELEVANT PROJECTS

MACROPRU

Fulbright Junior Advance Research Award

PhD
Bogumił Szady
MODELLING SPATIAL KNOWLEDGE

INSTITUTE OF HISTORY, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
BSZADY@IHPAN.EDU.PL
+48 22 831 36 42

EXPERTISE

Our Department develops domain formal ontologies modelling knowledge about the settlement network and administrative units, its features and relations. These elements are an important part of research on historic space. We develop ontologies of manifestations, which is a strategy of modelling phenomena changing over time. The domain ontologies we build refer to upper-level ontologies, such as CIDOC-CRM, BFO (Basic Formal Ontology), etc., to build infrastructure for digital research.

SEEKING FOR COLLABORATION WITHIN

geography, history, philosophy, knowledge acquisition, information science

RELEVANT PROJECTS

ONTOHGIS

PhD
Wiesława Duży
MODELLING SPATIAL KNOWLEDGE

INSTITUTE OF HISTORY, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
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EXPERTISE

Our Department develops domain formal ontologies modelling knowledge about the settlement network and administrative units, its features and relations. These elements are an important part of research on historic space. We develop ontologies of manifestations, which is a strategy of modelling phenomena changing over time. The domain on- tologies we build refer to upper-level ontologies, such as CIDOC-CRM, BFO (Basic Formal Ontology), etc., to build infrastructure for digital research.

SEEKING FOR COLLABORATION WITHIN

geography, history, philosophy, knowledge acquisition, information science

RELEVANT PROJECTS

URBANONTO

PhD
Tomasz Panecki
RESEARCH IN SPATIAL HISTORY,
HISTORICAL GEOGRAPHY & CARTOGRAPHY

INSTITUTE OF HISTORY, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
TPANECKI@IHPAN.EDU.PL
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EXPERTISE

Our Department specialises in broadly-construed spatial history, historical geography & cartography. Our expertise stems mainly from the series “Historical Atlas of Poland: Detailed Maps of the 16th century”, which also provides a complete network of localities & administrative boundaries. Experience gained from working on this series will be useful in preparing similar datasets from subsequent timeframes. The data should be treated as a starting point for further research, e.g. on social, economic, political & cultural history.

SEEKING FOR COLLABORATION WITHIN

financial stability, macroprudential policies, systemic risk, inequality, agent-based modelling

RELEVANT PROJECTS

MACROPRU

Fulbright Junior Advance Research Award

PhD
Adam Zapała
DIGITAL INFRASTRUCTURE FOR HUMANITIES

INSTITUTE OF HISTORY, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
AZAPALA@IHPAN.EDU.PL
+48 22 831 36 42

EXPERTISE

The expertise of the interdepartmental DARIAH.Lab team at the Institute of History lies in preparing digital tools for the humanities & arts. Our work focuses on providing reliable refe-rence databases for people & places in the past, preparing scholarly digital editions.

SEEKING FOR COLLABORATION WITHIN

geography, history, philosophy, knowledge acquisition, information science

RELEVANT PROJECTS

ONTOHGIS

Professor
Monika Rudaś-Grodzka
WOMENS ARCHIVE WORKING GROUP

INSTITUTE OF LITERARY RESEARCH, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
MONIKA.RUDAS-GRODZKA@IBL.WAW.PL
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EXPERTISE

The Women’s Archive team is focused on the study of women’s artistic creativity, autobiographic writing and biographies – mostly, but not exclusively in the area of Polish culture. It initiates and manages scholarly and popularization-oriented projects (e.g. exhibitions), by using and spreading methods of feminist critique, ecocriticism, queer studies, and other modern approaches. The team also specialises in modern research on women’s archival legacies.

SEEKING FOR COLLABORATION WITHIN

geography, history, philosophy, knowledge acquisition, information science

RELEVANT PROJECTS

URBANONTO

PhD
Maciej Maryl
DIGITAL HUMANITIES CENTRE

INSTITUTE OF LITERARY RESEARCH, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
MACIEJ.MARYL@IBL.WAW.PL
+48 22 657 29 58

EXPERTISE

We have several PhD candidates and early-career researchers on our teams, keen to develop their academic careers and continue their involvement in international projects. We have diverse interests in the field of digital humanities: digital tools and methods in literary and cultural studies, corpus linguistics, digital editing, open scholarly communication (including innovations and social media), data, programming, user and stakeholder research. We are experienced in a variety of methods from desk research, through text analysis, to interviews, focus groups, and user testing.

SEEKING FOR COLLABORATION WITHIN

digital tools and methods, digital editing, open scholarly communication, UX and stakeholder research

RELEVANT PROJECTS

SHAPE-ID
OBERRED
Dariah.Lab
NEP4DISSENT

PhD, DSc
Marcin Miłkowski
SECTION FOR LOGIC AND COGNITIVE SCIENCE

INSTITUTE OF HISTORY, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
MMILKOWS@IFISPAN.EDU.PL
+48 22 657 28 28

EXPERTISE

The research undertaken by the team focuses on two main streams: logic and cognitive science. We edit Studia Logica – an international logical journal, funded in 1953 by Kazimierz Ajdukiewicz. Research on cognitive science performed by the members of the section focuses on the analyses of the structure of theory in cognitive sciences, their methodology and practice. In particular, the focus is on problems in the mathematical modeling of cognitive systems.

SEEKING FOR COLLABORATION WITHIN

logic, philosophy of cognitive science, digital philosophy of science

RELEVANT PROJECTS

Cognitive Science in Search of Unity
NCN/PRELUDIUMBIS2
NCN/SONATINA6
NCN/SONATINA6

Professor
Anna Zielińska
DEPARTMENT OF LINGUISTICS

INSTITUTE OF LITERARY RESEARCH, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
ANNA.ZIELINSKA@ISPAN.EDU.PL
+48 22 826 76 88

EXPERTISE

I conduct research in the fields of dialectology, sociolinguistics, multilingualism, language contacts, language borderlands. I am the PI of the Polish-German research project “Language across generations: contact induced change in morpho-syntax in German-Polish bilingual speech” (financed by the NCN and DFG). This project aims to create an integrated description of Polish-German bilingualism in Poland and Germany, covering both grammar and sociolinguistic issues.

SEEKING FOR COLLABORATION WITHIN

language contacts, multilingualism, studies of multilingual communities, linguistic biographies

RELEVANT PROJECTS

LANGGENER

PhD, DSc
Nicole Dołowy-Rybińska
DEPARTMENT OF LINGUISTICS

INSTITUTE OF SLAVIC STUDIES, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
NICOLE.DOLOWY-RYBINSKA@ISPAN.EDU.PL
+48 22 826 76 88

EXPERTISE

Our research team works on minority and minoritized languages of Europe and their communities in a broad political, cultural, and linguistic context. We pursue anthropological and sociolinguistic research that touches upon such issues as language policies, language practices, shift and attitudes, language rights, and language maintenance and revitalization.

SEEKING FOR COLLABORATION WITHIN

sociolinguistics, multilingualism, minorities and borderlands, language revitalization

RELEVANT PROJECTS

NCN/SonataBis
NCN/OPUS
SORBIAN

PhD
Karolina Ćwiek-Rogalska
DEPARTMENT OF LITERARY AND CULTURAL STUDIES

INSTITUTE OF SLAVIC STUDIES, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
KAROLINA.CWIEK-ROGALSKA@ISPAN.EDU.PL
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EXPERTISE

Our team is interested in the emergence of re- settlement cultures in post-displacement regions of Slavic Central Europe. The hypothesis we follow is that they are formed in contact with the materiality left behind by expellees. We work on Polish, Czech, and Slovak case studies, conducting fieldwork in selected regions as well as archival search queries in national and local archives.

SEEKING FOR COLLABORATION WITHIN

studies of material culture

RELEVANT PROJECTS

SPECTRAL RECYCLING

PhD, DSc
Ewa Wróblewska-Trochimiuk
DEPARTMENT OF LITERARY AND CULTURAL STUDIES

INSTITUTE OF SLAVIC STUDIES, PAS
DIVISION I - HUMANITIES AND SOCIAL SCIENCES
EWA.WROBLEWSKA@ISPAN.EDU.PL
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EXPERTISE

Our team focuses on visual culture in Serbia, Croatia, and Ukraine. We analyze political communication, protests and political performances, as well as the media discourses about them. We are also interested in broader cultural phenomena characteristic of post-conflict areas and in transformative processes—particularly their impact on political culture, and on the ways collective experiences are represented.

SEEKING FOR COLLABORATION WITHIN

visual culture studies, social movements studies, anthropology of politics, post-conflict studies

RELEVANT PROJECTS

NCN/Sonata (PI)
FNP (PI)

PhD
Anna Zawadzka
DEPARTMENT OF NATIONALITY STUDIES

INSTITUTE OF SLAVIC STUDIES, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
ANNA.ZAWADZKA@ISPAN.EDU.PL
+48 22 826 76 88

EXPERTISE

My research fields are as follows: current historical politics in post-communist countries; the history of anticommunism in comparative perspectives; studies of antisemitism; synergy of antisemitism and anti-communism; the history, socio-political functions, and consequences of the "Jewish Bolshevism" stereotype; studies of the "Jewish Bolshevism" stereotype in an East-West comparative perspective; the social history of cold war era in Eastern and Central Europe; studies of prejudice.

SEEKING FOR COLLABORATION WITHIN

comparative studies of historical politics in Central and Eastern Europe

RELEVANT PROJECTS

NCN funded project

The Center for Cultural and Literary Studies of Communis

Professor
Agnieszka Mrozik
INTERDISCIPLINARY RESEARCH GROUP "SOCIALIST POLAND AND THE GLOBAL SOUTH"

INSTITUTE OF LITERARY RESEARCH, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
AGNIESZKA.MROZIK@IBL.WAW.PL
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EXPERTISE

We examine the connections between socialist Eastern European countries and the Global South after World War II, analyzing anti-colonial solidarity, literary and artistic exchanges, intellectual cooperation and educational partnerships. We also explore issues of racism and inequality in relations between these regions. Our areas of expertise include global history, critical race studies, gender studies, literary studies, cultural studies, visual studies, and the history of art and architecture. Our research methods include archival research, discourse analysis and close reading of literary artifacts.

SEEKING FOR COLLABORATION WITHIN

history of global socialism, East-South cultural and educational relations, anticolonial solidarities

RELEVANT PROJECTS

"Global Solidarity: Archives of the Future"

"Konteksty. Polska Sztuka Ludowa"

NPRH 15

Professor
Agata Roćko
LITERATURE AND GLOTTODIDACTICS TEAM

INSTITUTE OF LITERARY RESEARCH, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
AGATA.ROCKO@IBL.WAW.PL

EXPERTISE

We are a team that combines literature with a glottodidactic approach to teaching Polish as a foreign language. We collaborate with universities in various countries and write textbooks that demonstrate how to work with literature in Polish as a foreign language classes. Literature provides a pretext for conversations about language, history, and culture. Our team members research 18th-century literature: memoirs, poetry, history, and teaching methods. In these areas, members of our team are writing their doctoral theses. Through literature, we aim to connect the past with the present.

SEEKING FOR COLLABORATION WITHIN

glottodidactics, history of literature, Polish literature, culture and language, new technologies in teaching

RELEVANT PROJECTS

NAWA BJP/2024/1/00012

NAWA BJP/2024/1/00011

NAWA BJP/2023/1/00018

PhD, DSc
Karolina Bielenin-Lenczowska
DEPARTMENT OF NATIONALITY STUDIES

INSTITUTE OF SLAVIC STUDIES, PAS

DIVISION I - HUMANITIES AND SOCIAL SCIENCES
KAROLINA.BIELENIN-LENCZOWSKA@ISPAN.EDU.PL
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EXPERTISE

I am social anthropologist and linguist, working on migration and diaspora. My latest research project focuses on border regimes on the outskirts of the European Union, and local responses to mobility regimes and injustices. I am using the Macedonian-Serbian and Polish-Belarusian borders as case studies. I also examined how the social and linguistic landscapes of towns inhabited by the descendants of Poles in southern Brazil have been transformed

SEEKING FOR COLLABORATION WITHIN

migration studies, diaspora studies, linguistic anthropology, landscape, ethnography

RELEVANT PROJECTS

UFSC Visiting Professor

PhD, DSc
Maciej Figiel
DEPARTMENT OF MOLECULAR NEUROBIOLOGY

INSTITUTE OF BIOORGANIC CHEMISTRY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
MFIGIEL@IBCH.POZNAN.PL
+48 61 852 85 03 EXT. 1150

EXPERTISE

Our team studies the pathogenesis and therapy of neurodegeneration in model diseases such as polyglutamine Huntington's disease, juvenile HD, and SCA3/MJD. We define the earliest pre-symptomatic developmental pathogenesis using early brain models such as organoids, single-cell RNAseq, and proteomics. We investigate shRNA and AAV-based therapies (silencing or gene delivery) in our Knock-in SCA3 mouse and humanized HD mouse models model using BBB permeable AAV or AAV brain injections.

SEEKING FOR COLLABORATION WITHIN

neurodegeneration, brain, AAV drugs, organoids, HCS, microscopy, animal models, therapy, proteomics

RELEVANT PROJECTS

SCACYP

TreatPolyQ

National Ataxia Foundation funded project

PhD
Łukasz Kajtoch
DEPARTMENT OF MOLECULAR BIODIVERSITY

INSTITUTE OF SYSTEMATICS AND EVOLUTION OF ANIMALS, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
KAJTOCH@ISEZ.PAN.KRAKOW.PL
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EXPERTISE

Our research is focused on the evolution and ecology of insects. In particular, we are interested in the use of molecular information for solving phylogenetic, population genetic, or ecological questions. We work on taxa that are of particular interest for reasons of a taxonomic (for systematic revisions, barcoding, delimitation, etc.), evolutionary (for speciation and hybridization studies), population genetic (for conservation or management) or ecological (e.g. interactions among organisms) nature.

SEEKING FOR COLLABORATION WITHIN

barcoding, integrative taxonomy, molecular ecology, phylogenetics, population&conservation genetics

RELEVANT PROJECTS

NCN/OPUS

Professor, DSc
Magdalena Frąc
DEPARTMENT OF SOIL AND PLANT SYSTEM

INSTITUTE OF AGROPHYSICS, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
M.FRAC@IPAN.LUBLIN.PL
+48 81 7445061 EXT. 156

EXPERTISE

The department is focused on research concerning microorganisms biodiversity and resilient plant. We are interested in soil quality indicators, microbial soil health markers and living labs concept. Our interests concern soil-plant-microbiome interactions inclusive biotic and abiotic stress factors. We conduct work on bioproduct, biofertilizers and biotechnological solutions for agroecology, including diagnostics, control and monitoring of pathogens in sustainable agriculture and horticulture.

SEEKING FOR COLLABORATION WITHIN

antimicrobials; microbial diversity; one health; plant holobiont; soil-plant-microbiome interactions

RELEVANT PROJECTS

LEGUMINOSE
SoilCare
iSQAPER
SPIN-FERT

Professor
Roza Kucharczyk
LABORATORY OF BIOENERGETICS AND MITOCHONDRIAL DISEASE MECHANISMS

INSTITUTE OF BIOCHEMISTRY AND BIOPHYSICS, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
ROZA@IBB.WAW.PL
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EXPERTISE

Our research focuses on mitochondrial ATP synthase – an inner mitochondrial membrane enzyme. Our unique expertise on a global scale lies in targeted mutagenesis of mitochondrial DNA in S. cerevisiae yeast. We aim to understand the mechanisms of ATP synthase dysfunction due to mutations in genes encoded by mtDNA. We also study post-translational, redox homeostasis--dependent, mechanisms regulating ATP synthase and OXPHOS activities, focusing on the interplay between ampylation/phosphorylation.

SEEKING FOR COLLABORATION WITHIN

mitochondrial bioenergetics, redox homeostasis in mitochondria, regulation by ampylation of OXPHOS

RELEVANT PROJECTS

OPUS 16, National Science Centre

PhD, Assistant Professor
Agata Starosta
LABORATORY OF TRANSLATOMICS

INSTITUTE OF BIOCHEMISTRY AND BIOPHYSICS, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
AGATA.STAROSTA@IBB.WAW.PL
+48 22 592 33 41

EXPERTISE

I am interested in prokaryotic translation, gene expression regulation on a translation level, antibiotics targeting translation machinery, antibiotic resistance related to translation, and translation during sporulation in Bacillus subtilis. I apply a state-of-the-art analytical approach, utilizing Next Generation Sequencing to elucidate the regulatory role of translation machinery, combined with fluorescence-based microscopy, genetics, and biochemistry.

SEEKING FOR COLLABORATION WITHIN

molecular microbiology, antibiotic discovery

RELEVANT PROJECTS

EMBO Installation Grant (nr 3914)
FIRST TEAM
OPUS19

PhD, Assistant Professor

Szymon Swiezewski

LABORATORY OF SEEDS MOLECULAR BIOLOGY

INSTITUTE OF BIOCHEMISTRY AND BIOPHYSICS, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

SSWIEZ@IBB.WAW.PL

+48 22 592 57 25

EXPERTISE

Our lab focuses on molecular seed biology. We investigate the expression regulation of a key seed dormancy regulator, DOG1, which we have shown to be regulated by several lncRNAs. Antisense 1GOD suppresses dormancy by inhibiting DOG1 expression, while DOG1 antisense is itself negatively regulated by ABA and DOG1 alternative polyA site selection. PUPPIES are sense lncRNAs that, in response to salt, activate DOG1 expression, delaying germination. PUPPIES activate DOG1 expression by enhancing Pol II pausing.

SEEKING FOR COLLABORATION WITHIN

seed molecular biology, transcription and posttranscriptional gene expression regulation in plants

RELEVANT PROJECTS

OPUS 25

HOMING

TEAM

PhD, Assistant Professor

Roman Szczesny

LABORATORY OF RNA BIOLOGY

INSTITUTE OF BIOCHEMISTRY AND BIOPHYSICS, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

RSZCZESNY@IBB.WAW.PL

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EXPERTISE

Our laboratory focuses on understanding how mitochondrial RNAs are controlled in terms of their quality, quantity, and processing. Our main objective is to uncover the machinery responsible for the decay and surveillance of mitochondrial RNA. We also study the mechanisms that maintain and regulate the mitochondrial DNA and how they enable the cell to respond and adapt to different conditions. To achieve these goals, we use various methods, including genome-wide high--content siRNA screenings.

SEEKING FOR COLLABORATION WITHIN

RNA processing and decay, mitochondrial gene expression, mitochondrial DNA replication and repair

RELEVANT PROJECTS

MITGEST

SONATA BIS 11

PhD, Assistant Professor

Kevin Waldron

LABORATORY OF METALLOPROTEIN BIOLOGY

INSTITUTE OF BIOCHEMISTRY AND BIOPHYSICS, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

KWALDRON@IBB.WAW.PL

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EXPERTISE

I have an established track record of training and developing talented young researchers. Furthermore, our work is highly interdisciplinary, combining computational approaches (evolutionary biology, computational che-mistry) with empirical methods (biochemistry, biophysics), enabling high-level training of junior researchers for a diverse skill set. I have a worldwide collaborative network, enabling team members' exposure to a further diverse range of disciplines.

SEEKING FOR COLLABORATION WITHIN

microbiology, computational chemistry, evolutionary biology, immunology

RELEVANT PROJECTS

MAESTRO

NIH R01 AI155611-01

PhD
Szymon Śniegula
DEPARTMENT OF ECOSYSTEM CONSERVATION

INSTITUTE OF NATURE CONSERVATION, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
SNIEGULA@IOP.KRAKOW.PL
+48 602 152 996

EXPERTISE

Our research team has over 20 years of experience working on freshwater invertebrates, particularly odonates. We specialize in experimental ecology, focusing on life history, physiological, and behavioural traits. Recently, we've expanded into biological invasions, studying how invasive alien species impact native populations. Additionally, we have broadened our expertise to include molecular genetics (transcriptomics), specifically in the species *Ischnura elegans* and *Lestes sponsa*.

SEEKING FOR COLLABORATION WITHIN

freshwater ecology, life history, physiology, behaviour, biological invasions, transcriptomics

RELEVANT PROJECTS

ECOPOND
PROJECT 1
PROJECT 2
PROJECT 3

Professor
Ewelina Knapska
LABORATORY OF EMOTIONS NEUROBIOLOGY

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
E.KNAPSKA@NENCKI.EDU.PL
+48 22 589 23 70

EXPERTISE

Our research aims to understand the neural circuit mechanisms controlling social interaction and reward learning in health and disease. We focus on the amygdala and its functional connectivity with other brain structures, using neuroanatomical methods, opto- and chemogenetics, and recording neuronal activity. We have developed social communication, emotion discrimination, and reward learning behavioral protocols, including an automated system to track the behavior of mice in semi-naturalistic settings.

SEEKING FOR COLLABORATION WITHIN

autism/depression models, social behavior/reward processing in humans, ultrasound brain stimulation

RELEVANT PROJECTS

BRAINCITY
PainSociOT
EnviroMood

Assoc. Prof.
Adam Jurgoński
BIOLOGICAL FUNCTION OF FOOD TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
A.JURGONSKI@PAN.OLSZTYN.PL
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EXPERTISE

Elucidating the physiological and molecular mechanisms through which both well-known and novel dietary components influence gut function and metabolic health. The team conducts controlled feeding experiments using animal models of disorders characteristic of diet-related diseases. The research to date has focused on: • phenolic extracts and fiber–phenolic preparations, • prebiotic preparations and food additives, • unconventional sources of unsaturated fatty acids, • trace minerals in nanoparticle form.

SEEKING FOR COLLABORATION WITHIN

preparation, chemical analysis, evaluation of the properties of novel food ingredients

RELEVANT PROJECTS

NCN/OPUS
NCN/OPUS
NCN/SONATA

Professor

Izabela Wocławek-Potocka

EMBRYO BIOLOGY TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

I.WOCLAWEK-POTOCKA@PAN.OLSZTYN.PL

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EXPERTISE

We research advanced reproductive biotechnology in cattle, focusing on pre-implantation embryo development and oocyte quality markers to assess embryo viability. Our core method is in vitro embryo production (IVP), supporting micromanipulation, gene expression analysis, immunofluorescence, embryo culture, cryopreservation, and transfer. We study oocytes collected post-mortem and in vivo (OPU) from mature and immature animals, including young cattle to accelerate genetic progress. Our findings are translated into practical field applications for veterinarians and cattle breeders.

SEEKING FOR COLLABORATION WITHIN

embryotransfer, in vitro embryo production, veterinary

RELEVANT PROJECTS

NCN OPUS Lap

NCN OPUS

NCN OPUS

Assoc. Prof.

Joanna Wiśniewska

LABORATORY OF SPATIAL EPIGENETICS

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

J.BUKOWSKA@PAN.OLSZTYN.PL

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EXPERTISE

The research of the Regenerative Biology Team focuses primarily on the cellular and molecular mechanisms of skin wound healing. We are particularly interested in the following areas: • the impact of diet, aging, and metabolic status on the wound healing process; • skin regeneration versus repair; • wound healing–associated skin fibrosis; • metabolic regulation of skin regeneration and fibrosis; • skin immunology; • stem cells in wound healing and skin regeneration; • *in vitro* skin models in translational research

SEEKING FOR COLLABORATION WITHIN

metabolic diseases, nutrition , aging and regenerative medicine, immunology, inflammation, bioengineering

PhD.

Adam Kłosin

LABORATORY OF SPATIAL EPIGENETICS

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

A.KLOSIN@NENCKI.EDU.PL

+48 22 589 21 59

EXPERTISE

Our laboratory investigates the spatial organization of transcription during animal development and stress responses, focusing specifically on how transcription factors and chromatin interact to form nuclear condensates. By combining biochemical reconstitution with functional studies in the nematode *Caenorhabditis elegans*, the group aims to dissect the molecular composition, assembly mechanisms, and physiological relevance of these dense protein assemblies. Ultimately, we hope to uncover conserved mechanisms of transcriptional control that will enable new therapeutic strategies.

SEEKING FOR COLLABORATION WITHIN

biological phase separation, heat shock, transcriptional condensates, chromatin biology, embryonic development

RELEVANT PROJECTS

ERC

Professor
Iwona Grabowska
BIOELECTROANALYTICS TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
I.GRABOWSKA@PAN.OLSZTYN.PL
+48 89 500 33 44

EXPERTISE

Studying the interactions between biomolecules using electroanalytical methods to develop innovative analytical systems that can be applied in medicine, veterinary science, food analysis, and environmental protection. We are particularly interested in: • testing of antibodies, single-stranded nucleic acids (ssDNA, ssRNA), and aptamers as recognition element in electrochemical biosensors, • exploring new carbon or gold nanomaterials as transducer element in biosensors, • systems for targeted and controlled delivery of therapeutically significant compounds to cancer cells.

SEEKING FOR COLLABORATION WITHIN

electrochemical biosensors, aptasensors, immunosensors, genosensors, biomarkers

RELEVANT PROJECTS

ADEVASCO
NCN OPUS
NCN OPUS

Professor
Marek Strączkowski
HEAD OF PROPHYLAXIS OF METABOLIC DISEASES TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
M.STRACZKOWSKI@PAN.OLSZTYN.PL
+48 85 722 25 58

EXPERTISE

Research within the Prophylaxis of Metabolic Diseases Team focuses on the pathogenesis of insulin resistance, with particular emphasis on assessment of insulin resistance in individuals at increased risk of type 2 diabetes, pathogenesis of skeletal muscle and adipose tissue insulin resistance - tissue transcriptomic, cell cultures mechanisms of an improvement in insulin sensitivity during lifestyle intervention.

SEEKING FOR COLLABORATION WITHIN

pathogenesis of skeletal muscle and adipose tissue insulin resistance

RELEVANT PROJECTS

NCN OPUS

PhD, DSc, Assoc. Prof.
Tomasz Wypych
LABORATORY OF HOST-MICROBIOME INTERACTIONS

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
T.WYPYCH@NENCKI.EDU.PL
+48 22 589 21 84

EXPERTISE

Our research aims to unravel bidirectional interactions between the commensal microbiota and the host, which could be harnessed to treat inflammatory diseases. On the microbial side, we focus on identifying immunomodulatory metabolites active in the lungs and brain, and tailoring them toward the formulation of therapeutics against inflammatory conditions such as respiratory infections, asthma, and neuroinflammation. On the host side, we dissect IgA bacteria interactions that promote colonization of specific bacterial strains and exert far reaching effects on airway immunity.

SEEKING FOR COLLABORATION WITHIN

immunology, asthma, neurodegenerative disease, microbiome, metabolism

RELEVANT PROJECTS

FIRST TEAM - FENG

Assoc. Prof.

Radosław Kowalski

AQUATIC ORGANISM REPRODUCTIVE BIOTECHNOLOGY TEAM

INLIFE INSTITUTE OF ANIMAL REPRODUCTION AND FOOD RESEARCH, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

R.KOWALSKI@PAN.OLSZTYN.PL

+48 692 901 511

EXPERTISE

The research interests focus broadly on the reproduction of aquatic organisms and its support under controlled conditions. This includes understanding physiological and biochemical mechanisms underlying gamete function, as well as developing and optimizing methods that enhance reproductive success in both experimental and applied contexts, including aquaculture and conservation programs. Specific expertise: sperm motility and kinematic analysis, seminal plasma biochemistry and functional biomarkers, sperm cryopreservation and long-term storage of genetic resources.

SEEKING FOR COLLABORATION WITHIN

genetic and genomic analyses, molecular data, reproductive processes

RELEVANT PROJECTS

Salmocross

PhD, DSc, Assoc. Prof.

Aleksandra Pękowska

DIOSCURI CENTER FOR CHROMATIN BIOLOGY AND EPIGENOMICS

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

A.PEKOWSKA@NENCKI.EDU.PL

+48 22 589 21 70

EXPERTISE

Our group uses stem cell models, high-throughput sequencing technologies (ChIP-seq, ATAC-seq, RNA-seq, Hi-C), CRISPR-Cas9-mediated genome editing, and computational tools to decipher the regulatory networks orchestrating astrocyte evolution and functions in mammals and to understand the interplay between chromatin topology and gene expression.

SEEKING FOR COLLABORATION WITHIN

chromatin biology, epigenomics and transcriptional regulation, astrocyte biology and neurodevelopment

RELEVANT PROJECTS

Dioscuri Grant

MSCA Doctoral Network

PhD, DSc

Katarzyna Leszczyńska

LABORATORY OF TUMOUR OF HYPOXIA AND EPIGENOMICS

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

K.LESZCZYNSKA@NENCKI.EDU.PL

+48 22 589 22 51

EXPERTISE

Our research group focuses on tumour progression and therapy resistance in H3K27-altered diffuse midline gliomas (DMG). We investigate how tumour hypoxia and the H3K27M oncohistone can be exploited for therapeutic benefit. We apply CUT&RUN, ATAC-seq and chromatin capture to identify druggable vulnerabilities in DMG cells and their microenvironment. We study hypoxia-driven chromatin reprogramming, evaluate H3K27M-dependent gene targets, and explore strategies to eliminate the detrimental oncohistone from DMG cells.

SEEKING FOR COLLABORATION WITHIN

tumour microenvironment, mouse glioma models, paediatric high-grade gliomas, epigenomics, radiotherapy

RELEVANT PROJECTS

HIT-GLIO

PhD, DSc, Assoc. Prof.

Grzegorz Sumara

DIOSCURI CENTER FOR METABOLIC DISEASES

NENCKI INSTITUTE OF EXPERIMENTAL BIOLOGY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

G.SUMARA@NENCKI.EDU.PL

+48 22 589 21 90

EXPERTISE

Our Laboratory seeks to elucidate the signaling pathways regulating basic metabolic processes in adipose tissue, intestine and liver as well as inter-organ cross-talk, perturbations of which often result in metabolic diseases. We combine cell biology, biochemical and -omics approaches with mouse genetics. By determining essential signaling networks we aim to contribute to more targeted pharmacological strategies for the treatment of metabolic diseases such as obesity or type 2 diabetes (T2D).

SEEKING FOR COLLABORATION WITHIN

metabolism, obesity, diabetes, kinase signaling, ERK3, protein kinase D (PKD), lipolysis, ubiquitin

RELEVANT PROJECTS

SiCMetabol

Dioscuri Grant

TR 240

PhD

Małgorzata Stanek

LABORATORY OF ECOCHEMISTRY AND ENVIRONMENTAL ENGINEERING

W. SZAFER INSTITUTE OF BOTANY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

M.STANEK@BOTANY.PL

+48 12 346 50 03

EXPERTISE

We specialize in research on two global environmental problems - plant invasion and soil pollution. We are particularly interested in soil conditions and their interactions with plants as well as the structural and functional biodiversity of microbial communities. Our research interests revolve around the plants' secondary metabolites, their allelopathic properties and roles in the decomposition and revitalization of invaded habitats. We use classical and advanced analytical methods (GC-MS, NGS).

SEEKING FOR COLLABORATION WITHIN

invasive plants, heavy metals, ecosystems, secondary metabolites, plant-soil-microbe interactions

RELEVANT PROJECTS

IMPAWOS

QRUBRA

ToBeLawn

INVASION

PhD

Paweł Kapusta

FUNCTIONAL AND EVOLUTIONARY ECOLOGY GROUP

W. SZAFER INSTITUTE OF BOTANY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES

P.KAPUSTA@BOTANY.PL

+48 12 424 17 20

EXPERTISE

Our research group aims to explain the relationships between organisms and the environment, and their evolutionary factors and effects. Specifically, we focus on understanding the importance of plant-animal interactions for ecosystem functioning and the plant-soil biota feedback under environmental stresses, such as biological invasions, pollution, and climate change. We also study the spatial aspects of ecological processes and assess environmental quality using bioindicators.

SEEKING FOR COLLABORATION WITHIN

biodiversity, soil microbes, invasive plants, heavy--metal pollution, plant-animal interactions

RELEVANT PROJECTS

NCN/OPUS

NCN/PRELUDIUM

NCN/OPUS

NCN/SONATA

PhD
Magdalena Szechyńska-Hebda
PLANT BIOLOGY GROUP

W. SZAFER INSTITUTE OF BOTANY, PAS

DIVISION II - BIOLOGICAL AND AGRICULTURAL SCIENCES
M.SZECHYNSKA-HEBDA@BOTANY.PL
+48 12 424 17 66

EXPERTISE

Our research focuses on plant physiological and ecological responses to environmental stresses, with particular emphasis on climate change. We investigate stress signalling pathways and photosynthetic performance at multiple spatial and temporal scales, integrating satellite and remote sensing, thermal imaging and advanced hyperspectral methods with chlorophyll fluorescence and biochemical analyses. Our innovative tools for environmental monitoring contributes to the creation of smart biotechnological solutions.

SEEKING FOR COLLABORATION WITHIN

biochemistry, biophysics, AI-based solutions, biotechnological applications, system biology

RELEVANT PROJECTS

COUTECH
COOLCITY

PhD, Dsc
Marek Brzeziński
REACTIVE AND SUPRAMOLECULAR POLYMERS GROUP

CENTRE OF MOLECULAR AND MACROMOLECULAR STUDIES, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES
MAREK.BRZEZINSKI@CBMM.LODZ.PL
+48 42 680 33 28

EXPERTISE

Our team investigates the properties and biomedical applications of supramolecular materials based on biocompatible polymers or supramolecular assemblies. These functional and stimuli-responsive materials include micro/nanoparticles or hydrogels designed to target cancer, viruses, and microbes, with a focus on overcoming the global problem of multi-drug resistance.

SEEKING FOR COLLABORATION WITHIN

rheology, TEM microscopy, molecular modelling, multi-drug resistance

RELEVANT PROJECTS

Humboldt Research Fellowship
SONATA 12
PRELUDIUM BIS 5

PhD, DSc
Marta Dudek
CRYSTAL CHEMISTRY AND ENGINEERING TEAM

CENTRE OF MOLECULAR AND MACROMOLECULAR STUDIES, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES
MARTA.DUDEK@CBMM.LODZ.PL
+48 42 680 32 39

EXPERTISE

Our work focuses on understanding the crystallization of molecular solids, hoping to pave the way for predicting and influencing its outcomes. We are exploring new experimental approaches to crystallization and combine them with crystal structure prediction calculations (CSP) as a tool indicating possible crystallization pathways. We also combine CSP with solid-state NMR to solve difficult problems in determining the structure of molecular crystals.

SEEKING FOR COLLABORATION WITHIN

understanding crystallization, drug polymorphism, NMR crystallography, crystal structure prediction

RELEVANT PROJECTS

NCN SONATA BIS
NCN SONATA

Professor
Grażyna Adamus
LABORATORY OF BIODEGRADABLE MATERIALS

CENTRE OF POLYMER AND CARBON MATERIALS, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

GADAMUS@CMPW-PAN.PL

+48 32 271 60 77

EXPERTISE

Our group investigates biodegradable and biocompatible polyesters for medical and environmental applications. Our research interests include polymers from renewable sources, the synthesis of functional polyesters with controlled biodegradability and determining the structure-property relationships of new polymer materials. We also have experience in the use of mass spectrometry techniques for molecular-level structural studies of synthetic polymers and the products of their degradation.

SEEKING FOR COLLABORATION WITHIN

biodegradable polyesters, drug delivery system, biomaterials, eco-packaging, mass spectrometry

RELEVANT PROJECTS

GREEN Map

BIOCLEAN

PELARGODONT (M-ERA.NET)

Bio ANC Hydrogel

Professor
Tomasz Cichorek
LABORATORY FOR LOW TEMPERATURE PHYSICS

INSTITUTE OF LOW TEMPERATURE & STRUCTURE RESEARCH, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

T.CICHOREK@INTIBS.PL

+48 71 395 42 65

EXPERTISE

Our area of research centers around experimental studies of condensed matter at low temperatures, emphasizing strongly correlated electron systems and Weyl physics. Particular interest is directed toward the two-channel Kondo phenomenon, multiband effects in unconventional superconductors, and magnetostriction and Nernst effect in topological semimetals.

SEEKING FOR COLLABORATION WITHIN

very low temperatures, high pressure, strong magnetic fields

RELEVANT PROJECTS

NCN/OPUS

NCN/OPUS

Max Planck Society: Partner Group for Non-magnetic Kondo Effect

Professor
Rafał Wiglusz
BBRA - BIOMATERIALS FOR BIO-RELATED APPLICATIONS, DIVISION OF BIOMEDICAL PHYSICOCHEMISTRY

INSTITUTE OF LOW TEMPERATURE & STRUCTURE RESEARCH, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

R.WIGLUSZ@INTIBS.PL

+48 71 395 41 59

EXPERTISE

Our laboratory is focused on the preparation of nanosized biomaterials, followed by the creation of periodically ordered nanostructures based on single nanoparticles. An important factor is the design and fabrication of nanocomponents with new functionalities and characteristics for improving existing materials: photonic and conductive materials, polymers and composites. The aim is to develop innovative products and applications in electronics and biomedicine based on nanoscale technology.

SEEKING FOR COLLABORATION WITHIN

biomaterials, tissue regeneration, cells proliferation, biopolymers, hydrogels, block copolymers

RELEVANT PROJECTS

NCN funded project

NCN funded project

POIR

POWR

Professor
Ksenia Pazdro
MARINE CHEMISTRY & BIOCHEMISTRY DEPARTMENT

INSTITUTE OF OCEANOLOGY, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES
PAZDRO@IOPAN.PL
+48 58 731 19 39

EXPERTISE

The Marine Biogeochemistry Laboratory is focused on C, N, P, O cycling in the marine environment.

SEEKING FOR COLLABORATION WITHIN

marine CO_2 system, ocean acidification, biological pump, land-ocean continuum

RELEVANT PROJECTS

BONUS INTEGRAL
ICOS
RAW
PROSPECTOR

Professor
Mirosław Darecki
MARINE PHYSICS DEPARTMENT

INSTITUTE OF OCEANOLOGY, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES
DARECKI@IOPAN.PL
+48 58 731 18 13

EXPERTISE

Our main research areas are marine optics, bio-optics, remote sensing, and acoustics. We have expertise in conducting optical measurements and analyzing optical and remote sensing data in various marine environments, in developing optical methods for investigating biological and physical processes in the sea and remote sensing algorithms for retrieval of water constituents, and in devising hydroacoustic techniques for classifying benthic habitats, seabed morphometry, and biological organisms.

SEEKING FOR COLLABORATION WITHIN

development of hydroacoustic classification techniques to monitor marine ecosystems and environment

RELEVANT PROJECTS

ALKEKONGE
BALTIC-GAS
COMMON SENSE
SatBaltyk

Professor
Dorota Gryko
LABORATORY OF SUSTAINABLE CATALYSIS

INSTITUTE OF ORGANIC CHEMISTRY, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES
DOROTA.GRYKO@ICHO.EDU.PL
+48 22 343 20 51

EXPERTISE

Our laboratory is focused on sustainable chemistry. In particular, we develop catalytic methods that mimic the efficiency that is characteristic of enzymes by combining the robust nature of simple nature-derived catalysts with light as the source of energy. We are interested in finding strategies for efficient organic synthesis in accordance with the principles of green chemistry. We also work on vitamin B12, focusing on its catalytic properties and using it as a drug delivery vehicle.

SEEKING FOR COLLABORATION WITHIN

bioorthogonal chemistry, DFT calculations, artificial intelligence, drug delivery, vitamin B12

RELEVANT PROJECTS

PhotoReact
OligoMed
NCN/OPUS18
NCN/OPUS+LAP
NCN/MAESTRO12

Professor
Agnieszka Szumna
MOLECULAR RECOGNITION GROUP

INSTITUTE OF ORGANIC CHEMISTRY, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

AGNIESZKA.SZUMNA@ICHO.EDU.PL

+48 22 343 22 03

EXPERTISE

Our laboratory is focused on the design and synthesis of supramolecular systems, capsules, cavitands, and macrocycles. In particular, we are interested in their host--guest binding abilities, chiral recognition, and photo-physical properties. We investigate interactions of macro cyclic compounds with peptides and proteins. We also carry out mechanochemical synthesis and encapsulation.

SEEKING FOR COLLABORATION WITHIN

imaging, PET, drug delivery, protein interactions

RELEVANT PROJECTS

NCN/OPUS21

NCN/OPUS25 2023/49/B/ST5/02466

Professor
Daniel Gryko
LABORATORY OF FUNCTIONAL DYES

INSTITUTE OF ORGANIC CHEMISTRY, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

DANIEL.GRYKO@ICHO.EDU.PL

+48 22 343 23 21

EXPERTISE

The research interests of the Gryko group are mainly centered around advanced functional dyes and catalysis. We are mainly interested in the following areas:

- next-generation fluorescent probes for stimulated emission depletion microscopy
- quadrupolar, two-photon absorbing dyes
- chemistry of diketopyrrolopyrroles and pyrrolo[3,2-b] pyrroles
- solvatochromism of fluorescence and symmetry breaking in the excited state
- curved aromatic architectures

SEEKING FOR COLLABORATION WITHIN

two-photon absorption, symmetry breaking in the excited state, photophysics of functional dyes

RELEVANT PROJECTS

ARCHIMEDES ERC

CHAIR

Micro4Nano

NCN/OPUS

Professor
Janusz Lewiński
COORDINATION METAL COMPLEXES AND FUNCTIONAL MATERIALS

INSTITUTE OF PHYSICAL CHEMISTRY, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

JLEWINSKI@ICHF.EDU.PL

+48 22 343 20 76

EXPERTISE

Our research program addresses a wide range of fundamental problems in inorganic and coordination chemistry, catalysis, materials chemistry, and nano-science. Transferring curiosity-driven molecular-level fundamental studies to practical aspects is a unifying theme for much of this research. We aim to develop bottom-up approaches to functional materials, such as zinc oxide quantum dots, metal halide perovskites and metal-organic frameworks, relying on wet methods and mechanosynthesis.

SEEKING FOR COLLABORATION WITHIN

coordination chemistry, nanoscience & nanotechnology, perovskites & photovoltaics, mechanochemistry

RELEVANT PROJECTS

NaMeS

PD2PI

NOBLESSE

Professor

Włodzimierz Kofman

MARS EXPLORATION LABORATORY

SPACE RESEARCH CENTRE, PAS

DIVISION III - MATHS, PHYSICS, CHEMISTRY, EARTH SCIENCES

WKOFMAN@CBK.WAW.PL

+48 22 496 64 06

EXPERTISE

The main axis of our research is the volcanic, tectonic, and hydrothermal characterization and evolution of Mars. We are currently especially focused on the potential sources of trace gas emissions released from the crust into the atmosphere, comparative planetary geology (including the study of terrestrial analogues of the studied regions on Mars in the field and with orbital data), and developing innovative concepts for geological exploration of planetary bodies, surfaces and subsurfaces.

SEEKING FOR COLLABORATION WITHIN

planetary geology, Mars, planetoid

RELEVANT PROJECTS

FlyRadar

Full Professor

Wiesław Ostachowicz

CENTRE OF MECHANICS OF MACHINES /
MECHANICS OF INTELLIGENT STRUCTURES DEPARTMENT

INSTITUTE OF FLUID-FLOW MACHINERY, PAS

DIVISION IV - ENGINEERING SCIENCES

WIESLAW@IMP.GDA.PL

+48 58 522 52 85

EXPERTISE

SHM techniques, vibration control, structural dynamics, composite structures, multifunctional materials, smart materials and structures, damage assessment. Spectral Finite Element method for damage assessment and smart materials applications. Guided wave propagation methods for damage detection using smart sensor technologies. Methods of effectiveness and sensitivity to cracks in metallic and composite structures without restrictions on load, boundaries, temperature, or environmental conditions.

SEEKING FOR COLLABORATION WITHIN

SHM and NDT techniques, with 3D laser scanning, THz, FBG, electromechanical impedance & thermography

RELEVANT PROJECTS

BOHEME

ComBoNDT

MAREWINT

ENCOMB

Full Professor

Dariusz Kardaś

CENTRE OF FLOW AND COMBUSTION /
RENEWABLE ENERGY DEPARTMENT

INSTITUTE OF FLUID-FLOW MACHINERY, PAS

DIVISION IV - ENGINEERING SCIENCES

DK@IMP.GDA.PL

+48 58 522 51 66

EXPERTISE

Our team specializes in studying combustion and gasification phenomena and designing heat and power cogeneration systems. We conduct theoretical analyses and model flow processes involving phase transformations and chemical reactions, utilizing CFD and DEM calculations. Our work includes thermo-chemical measurements of pyrolysis, combustion, and heat transfer phenomena. We design and analyse burners, synthetic fuel reactors, heat exchangers, and power systems for rocket engines.

SEEKING FOR COLLABORATION WITHIN

particulate matter separation, syngas to liquids catalysis, surface reactions, combustion

RELEVANT PROJECTS

ResMe2E

MIZDRA 2.0

Associate Professor

Paweł Flaszyński

CENTRE OF FLOW AND COMBUSTION / AERODYNAMICS DEPARTMENT

INSTITUTE OF FLUID-FLOW MACHINERY, PAS

DIVISION IV - ENGINEERING SCIENCES

PFLASZYN@IMP.GDA.PL

+48 58 522 52 68

EXPERTISE

Our Aerodynamics Department has participated in many EU projects in aviation (turbomachinery and drag reduction), UAV propulsion and wind energy (turbine blades, wake steering and wind farm interactions). The research is focused on flow structure, heat transfer, boundary layer transition and separation, shock wave boundary layer interaction, flow control and noise reduction. Flaszyński has coordinated the EU FP7 TFAST project and H2020-MSCA-ITN TEAMAero.

SEEKING FOR COLLABORATION WITHIN

gas turbine, compressor, wind turbine, wind farm, flow control, heat transfer, aeroacoustics

RELEVANT PROJECTS

H2020-MSCA-ITN TEAMAero

HORIZON-EIC-2023-PATHFINDEROPEN-01 BEALIVE

H2020-MG-2016-2017 SMS

H2020-MSCA-ITN zEPHYR

Associate Professor

Magdalena Mieloszyk

TRICITY DOCTORAL SCHOOL OF THE POLISH ACADEMY OF SCIENCES

INSTITUTE OF FLUID-FLOW MACHINERY, PAS

DIVISION IV - ENGINEERING SCIENCES

MMIELOSZYK@IMP.GDA.PL

+48 58 522 53 10

EXPERTISE

TSD PAN offers education for PhD students from all over the world in mechanical engineering, civil engineering, Earth and related environmental sciences. Thanks to NAWA, TSD PAN organizes summer schools with lecturers - experts from national/international institutes, universities/companies. TSD PAN participates in mobilities (e.g. ERASMUS+, NAWA) and promotes Poland for foreigners. Since 2020, TSD PAN organizes the annual Doctoral Seminar for PhD students.

SEEKING FOR COLLABORATION WITHIN

doctoral network, summer schools, clean energy, functional materials, structural health monitoring

RELEVANT PROJECTS

CenMAT

mTSDPAN

ERASMUS+

PhD, DSc

Joanna Domańska

SECURITY, MODELLING AND PERFORMANCE EVALUATION GROUP

INSTITUTE OF THEORETICAL AND APPLIED INFORMATICS, PAS

DIVISION IV - ENGINEERING SCIENCES

JOANNA@IITIS.PL

EXPERTISE

My team is working on issues related to: anomaly detection and energy performance in Internet of Things (IoT) networks; semantic spatial orientation as a foundation for autonomous navigation systems that understand natural language context; software vulnerability prediction, particularly focusing on static code analysis using artificial intelligence algorithms; explainability of deep neural networks.

SEEKING FOR COLLABORATION WITHIN

attack detection, autonomous driving, vulnerability prediction, energy performance, explainable AI

RELEVANT PROJECTS

SerIoT

SDK4ED

IoTAC

DOSS

Professor
Agnieszka Chacińska
LABORATORY OF MITOCHONDRIAL BIOGENESIS

IMOL POLISH ACADEMY OF SCIENCES
DIVISION V - MEDICAL SCIENCES
A.CHACINSKA@IMOL.INSTITUTE
+48 733 041 251

EXPERTISE

The Chacinska Group explores novel and exciting links between protein transport mechanisms and mitochondrial protein homeostasis.

It postulates the presence of unique mechanisms involved in protein biogenesis that involve crosstalk between cytosol and mitochondrial compartments. The goal is to better understand the complex and dynamic processes involved in the formation of functional organelles, as well as the maintenance of cellular protein homeostasis and its failures, which result in pathology.

SEEKING FOR COLLABORATION WITHIN

molecular cell biology, biochemistry, mitochondria, protein biogenesis, homeostasis, stress response

RELEVANT PROJECTS

EMBO Postdoctoral Fellowship

NCN/POLONEZ

PhD
Anna Marusiak
LABORATORY OF MOLECULAR ONCOSIGNALLING

IMOL POLISH ACADEMY OF SCIENCES
DIVISION V - MEDICAL SCIENCES
A.MARUSIAK@IMOL.INSTITUTE
+48 607 435 448

EXPERTISE

The Laboratory of Molecular OncoSignalling is interested in studying how aberrant signaling in cancer cells contributes to cancer development, metastasis, and therapy resistance, and how we can use that knowledge to design novel anticancer treatments. In particular, we focus on investigating oncogenic signaling activated by MLK4 in breast cancer and its role in metastasis and tumor microenvironment. We also assess the efficiency of novel MLK4 small molecule inhibitors and PROTAC compounds.

SEEKING FOR COLLABORATION WITHIN

cancer biology, signal transduction, breast cancer, inhibitors, PROTACs, cancer therapies

RELEVANT PROJECTS

NCN/FUGA

PhD
Karolina Szczepanowska
LABORATORY OF METABOLIC QUALITY CONTROL

IMOL POLISH ACADEMY OF SCIENCES
DIVISION V - MEDICAL SCIENCES
K.SZCZEPANOWSKA@IMOL.INSTITUTE
+48 605 544 190

EXPERTISE

Our lab is fascinated by the mechanisms underlying the regulation of cellular metabolism. Our research focuses on the quality control of mitochondrial respiratory complexes, a set of elaborative mo- lecular machines critical for energy production. The major aim is to understand how the respiratory complexes are surveilled, repaired and turned over upon exposure to stress. Our findings will help design new therapeutic strategies against diseases associated with metabolic constrain.

SEEKING FOR COLLABORATION WITHIN

cancer, rare diseases, mitochondria, protein turnover, protein quality control, metabolism

RELEVANT PROJECTS

EMBO Postdoctoral Fellowship

NCN/SONATINA6

Professor
Magdalena Zielińska
DEPARTMENT OF NEUROTOXICOLOGY

MOSSAKOWSKI MEDICAL RESEARCH CENTRE, PAS

DIVISION V - MEDICAL SCIENCES
MZIELINSKA@IMDIK.PAN.PL
+48 22 608 64 70

EXPERTISE

Our research focuses on the mechanisms underlying brain function in hyperammonemic encephalopathies (including rare diseases), anxiety, epilepsy, and metabolic disorders, as well as interorgan crosstalk with the liver and intestine. We combine cell biology, biochemical, and omics approaches with behavioural studies. We aim to decipher the role of the glutamine-glutamate cycle and oxidative stress in the pathobiology of gliomas, in search of therapeutic strategies in collaboration with clinicians and chemists.

SEEKING FOR COLLABORATION WITHIN

hyperammonemic encephalopathies, anxiety, metabolic diseases, epilepsy, gliomas, anticancer drugs

RELEVANT PROJECTS

HEPENTRANS EEA and Norway Grants
NCN/OPUS20
NCN/OPUS15
NCN/OPUS21

PhD
Magdalena Winiarska
DEPARTMENT OF IMMUNOLOGY

MOSSAKOWSKI MEDICAL RESEARCH CENTRE, PAS

DIVISION V - MEDICAL SCIENCES
MWINIARSKA@IMDIK.PAN.PL
+48 22 608 64 49

EXPERTISE

Our Department of Immunology is focused on elucidating the mechanisms regulating immune cell activation and advancing cancer immunotherapy using monoclonal antibodies, effector cells and cells engineered with chimeric antigen receptors (CAR). Our work ranges from basic research in the field of cancer immunology to translational research aimed at improving the efficacy of cancer therapy.

SEEKING FOR COLLABORATION WITHIN

adoptive therapy, CAR-T, monoclonal antibodies, tumour microenvironment, drug target, immunooncology

RELEVANT PROJECTS

STIMUNO ERC Starting Grant
ArTCell EIC PATHFINDER
NCN/OPUS23
NCN/OPUS20

PhD, DSc
Grzegorz Kreiner
DEPARTMENT OF BRAIN BIOCHEMISTRY

MAJ INSTITUTE OF PHARMACOLOGY, PAS

DIVISION V - MEDICAL SCIENCES
KREINER@IF-PAN.KRAKOW.PL
+48 12 662 33 35

EXPERTISE

Our laboratory is focused on unraveling the intracellular pathways related to neurodegeneration and the etiology of depression. We work on transgenic models, including spatiotemporal knock-outs and models generated by CRISR/Cas9 gene editing. Our studies focus on drugs used in the treatment of depression and neurodegenerative diseases. We exploit various laboratory methods for behavioral phenotyping, RNA/protein expression assessment, and immunohistochemistry.

SEEKING FOR COLLABORATION WITHIN

antidepressants, Parkinson's disease, Huntington's disease, transgenic models, Cre/loxP, CRISPR/Cas9

RELEVANT PROJECTS

NCN/OPUS13
NCN/OPUS7
NCN/SonataBIS11
NCN/SONATA15